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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/621,390

07/18/2003

Hyun-Doo Shin

Q76541

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07/13/2006

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,390

Applicant(s)

SHIN ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
4a) Of the above claim(s) 1-48 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 49-55 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed with respect to claims 49-55 on 4/24/06 have been fully considered but they are not persuasive.
2. Claims 49-55 remain rejected under 35 U.S.C. 102(e) as being anticipated by Ratakonda, as set forth in the previous Office Action of 1/23/06.
3. The Applicants present three arguments contending the Examiner's rejection of claims 49-55 under 35 U.S.C. 102(e) as being anticipated by Ratakonda, as set forth in the previous Office Action of 1/23/06. However, after a consideration of the arguments presented, and further scrutiny of the Ratakonda reference, the Examiner must respectfully disagree for the reasons that follow.

Firstly, the Applicants argue that the reference's mentioned motion intensity is related to pre-screen for dominant motion, and fails to disclose the use of motion intensity as it relates to the use of motion compensation in the claim (Request for Reconsideration of 4/24/06: page 2, lines 9-13). The Examiner respectfully disagrees. It is noted that the generation of pan and zoom vectors in this pre-screening fashion is done as alternative to generating the same vectors through the computationally intensive process of motion compensation (Ratakonda: column 13, lines 40-50), but that the vectors are used in motion compensation themselves (Ratakonda: column 17, lines 50-67; column 18, lines 1-32). Also, it is noted the vectors themselves not only represent global motion within a frame, but global motion from frame to frame (i.e. interframe motion, as in the claims). In particular, it is noted that Ratakonda discloses applying a pan vector over a

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sequence of frames, such as pan frames (Ratakonda: column 12, lines 30-40). As such, the Examiner maintains that the limitation is met.

Secondly, the Applicants argue Ratakonda teaches that frames with dominant motion are detected and removed, and the histogram computation occurs after this process, and thus the disclosed histogram computation fails to take into account motion intensity levels. (Request for Reconsideration of 4/24/06: page 2, lines 14-18). The Examiner respectfully disagrees. It is noted that removal of frames with dominant motion means that those frames are not used in the histogram computation, but that the remaining frames are used for such a computation. It is noted that Ratakonda discloses using block histograms, which compute action measures that, are measures of motion intensity (Ratakonda: column 11, lines 10-20). The action measures of the block histograms read on the “motion intensity levels” of the claims since the action measures are used to find instances of fine motion (less intensive motion characteristics). As such, the Examiner maintains that the limitation is met.

Lastly, the Applicants argue that Ratakonda fails to disclose computing a histogram as in claim 49 (Request for Reconsideration of 4/24/06: page 2, lines 19-23; page 3, lines 1-7). The Examiner respectfully disagrees. As discussed above, the reference’s use of action measures in block histograms reads on the “motion intensity levels” and will not be revisited here. The second part of the limitation is “indicating a frequency of the respective motion intensity levels...” which is met by Ratakonda’s disclosure of using the histogram to identify the presence of key-frames in video sequence (Ratakonda: column 7, lines 45-67; column 8, lines 1-65). Since key-frames are associated with a greater degree of motion intensity over their preceding frames, they start off a new sequence of frames, and thus the identification of key-frame occurrence is

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reads on determining a frequency of such frames. As such the Examiner maintains that the limitation is met.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
July 9, 2006

~~ANDY RAO~~
~~PRIMARY EXAMINER~~

